

VSEPR good overview

Total Number of Atoms + Lone pairs around central atom	Geometry
No Central Atom	<p>Linear: O_2, N_2 (AX)</p> <p>With Lone Pairs: O_2, N_2 (AX₂), CO_2 (AX₂ 2BP 0LP)</p>
2 AX ₂	Linear: CO_2
3 AX ₃	<p>Trigonal Planar: BF_3 (LP 0 BP 3)</p> <p>Bent: SO_2 (LP 1 BP 2)</p> <p>H_2O (LP 2 BP 2)</p>
4 AX ₄	<p>Tetrahedral: CH_4 (LP 0 BP 4)</p> <p>Pyramidal: NH_3 (LP 1 BP 3) (AX₃E)</p> <p>Bent: H_2O (LP 2 BP 2) (AX₂E₂)</p>
5 AX ₅	<p>Trigonal Bipyramidal: PF_5 (LP 0 BP 5)</p> <p>See-saw: SF_4 (LP 1 BP 4)</p> <p>T-Shaped: ClF_3 (LP 2 BP 3)</p> <p>Linear: XeF_2 (LP 3 BP 2)</p>
6 AX ₆	<p>Octahedral: SF_6 (LP 0 BP 6)</p> <p>Square Pyramidal: BrF_5 (LP 1 BP 5)</p> <p>Square Planar: XeF_4 (LP 2 BP 4)</p> <p>T-shaped: XeF_3 (LP 3 BP 3)</p> <p>Linear: XeF_2 (LP 3 BP 2)</p>